



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
NorthStar Battery/EnerSys Energy Products Plant 2
1320 N Alliance Ave
Springfield, MO 65803
FRS# 110039571175

Inspection Date(s):

March 1, 2023

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- A Confidential Business Information (4 pages)
- B Receipt for Documents (1 page)
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**This Contents page shows all the sections contained in this report
and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements located in the code of federal regulations at 40 CFR Part 63 Subpart P, National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources. The inspection was part of the U.S. Environmental Protection Agency's (EPA) Creating Cleaner Air for Communities National Enforcement Compliance Initiative.

This inspection was conducted by Charlotte Papp, EPA Region 7, Enforcement and Compliance Assurance Division, Air Branch.

FACILITY CONTACT INFORMATION

Table 1 lists the primary facility contacts.

Table 1. FACILITY CONTACT INFORMATION		
Name	Title	Email Address
Bruce D. Volner	EHS Specialist	bruce.volner@enersys.com
Adam Holbrooke	EHS Manager	adam.holbrooke@enersys.com
Gilberto Castillo	Plant Manager	gilberto.castillo@enersys.com
Adam Bressler	America – EHS Manager	adam.bressler@enersys.com
Randy Reyer	EHS Director - Global	randy.reyer@enersys.com

FACILITY OVERVIEW

According to the NorthStar Battery Plant 2 Title V operating permit (Permit Number 022022-002), issued by Missouri Department of Natural Resources, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 2**):

Table 2. APPLICABLE REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 63 Subpart P	National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources

Table 2. APPLICABLE REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 60 Subpart KK	Standards of Performance for Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After January 14, 1980, and On or Before February 23, 2022

The permit lists 8 emission points controlled via baghouses, HEPA filters and/or scrubbers, as well as 3 uncontrolled emission points. The permit likewise specifies that the facility must keep at least five years of relevant records to demonstrate compliance for these emission units.

An Enforcement and Compliance History Online (ECHO) report taken on February 8, 2023, list several failed tests on October 4, 2021.

FACILITY OPERATIONS SUMMARY

The facility manufactures lead acid batteries. Lead Oxide is produced in a lead oxide mill which is controlled with a baghouse. The lead oxide dust is taken to the paste mixing area which is equipped with four scrubbers. A separate grid casting line creates the grids from solid lead, and the paste is applied to those grids. These grids are then placed into curing ovens.

After the grids are removed from the oven, they are placed into containers and filled with acid, then set into lines in the formation area where they are left to charge for several days.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on March 1, 2023, and completed a drive-by surveillance inspection. I did not observe anything out of the ordinary. I made entry at the front office and introduced myself, presented my credentials, and provided my business card to Mr. Holbrooke. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA, specifically, to determine compliance with the conditions listed in Table 2. I explained that after asking for some general business information, I would observe work practices, process units, emission units, control equipment and review associated records demonstrating compliance with the regulations. I explained to Mr. Holbrooke that the facility could make a claim of business confidentiality and

provided a Confidential Business Information form (Appendix A). Mr. Holbrook did not make a claim of confidentiality at that time.

I was given a facility tour by Mr. Holbrooke and Mr. Volner. I was asked to wear the following personal protective equipment (PPE) by Mr. Holbrooke for general facility safety: safety glasses, steel-toed boots with disposable booties, gloves, lab coat (the lab coat was provided by facility and returned at the close of the site tour).

We began the site tour outdoors with the baghouses. I observed baghouses 2, 4, 1 and 3 (in that order). According to Mr. Holbrook baghouse 3 had not been operated for several years. I continued inside to the oxide mill. I observed the reclamation area, as well as the pressure gauge for baghouse 1. I walked into the “southwest expansion area” and felt a negative flow of air into the main facility.

I next observed the grid casting and comcast lines. The pasting lines were on an upper level from the main floor. I observed the paste mixing area and the four scrubbers used as control devices for that process area. We continued the site tour with the curing ovens where I photographed the interior of an oven (photo 86) and observed an oven in operation with no visible emissions.

We continued to the oxide silo room and oxide dock. Due to the dust generation from active loading, I was not able to enter the oxide silo room to view the pressure gauges for the remaining baghouses without a respirator. I requested the live data be provided to verify the operating values at the time of my inspection.

While walking past pasting line 4, I saw a stream of water from the upper area leaking to the bottom area. I was informed by Mr. Holbrook that staff were cleaning the upper area and that the water was being drained in the lower drains.

The site tour continued to the assembly area and high-speed line assembly. We returned to the front office at approximately 10:29 am.

We returned from the site tour into the conference room and continued our discussion of facility operations and recordkeeping. We continued this discussion until approximately 10:56 am, when we broke for lunch and to allow me to prepare for a closing conference

I conducted a closing conference with the attendees listed in Table 1. I confirmed records I collected onsite that day, as indicated on the Receipt for Documents (Appendix B), and we discussed records that I requested for further review (Appendix C). I provided the facility with copies of the small business resource information sheet, and the Receipt for Documents (Appendix B). We discussed my preliminary observations and some potential compliance concerns.

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions and activities were documented in field records. All photographs are attached as **Appendix D**. I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

Potential Finding 1: Debris and powder were visible on the ground at various locations inside the facility.
Observation Summary: Yellow powder/debris was visible on the floor and walls in the oxide mill, oxide silo room, and oxide dock
Citation: 40 CFR 63.6(e)(1)(i), 40 CFR 63.11423(a)(4)
Evidence: Appendix C- Field Photographs, photographs No. 57-58, 84,88-94
Description of Observation: While conducting the facility site tour I observed a fine yellow powder on the floor and walls in various areas. This calls into question whether there are leaks in process units potentially going unaddressed, or ongoing housekeeping and cleaning issues at the facility.

Potential Finding 2: Inadequate detail and/or lack of repair records
Observation Summary: Facility is required to keep record of repair actions for baghouses and HEPA filters
Citation: Permit condition 3J (Permit Number 022022-002)
Evidence: Submitted records
Description of Observation: I requested work orders and records of repair to any documented issues on baghouses and other control devices for the past three years. The

Potential Finding 2: Inadequate detail and/or lack of repair records

records I received on April 28, 2023, via a file transfer site have little detail about the repairs that were made, simply the dates in which they were “closed out”. This calls into question whether the facility is taking adequate measures to ensure repairs are durable. Further, no records of retesting or confirming the repairs were successful were submitted as part of the request for repair records. Further investigation/records requests are required to determine the full extent of the repair records kept at by the facility.

Potential Finding 3: Splatter and debris throughout facility

Observation Summary: Splatter and debris from lead oxide paste were present on many walls and process units throughout the facility.

Citation: 63.11423(a)(4), 40 CFR 63.6(e)(1)(i)

Evidence: Appendix C- Field Photographs, photographs No. 59-62, 75, 84-85
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Description of Observation: Splatter from the paste mixing process was visible on process equipment and along walls of process area. It is unclear if this paste can create airborne dust or contaminants that are not being routed to a control device. Further investigation may be warranted.

End of report.